

MARIPOSA COUNTY

2008 WMA Base Funding Work Plan

SIERRA - SAN JOAQUIN NOXIOUS WEED ALLIANCE

January 1, 2009 – December 31, 2009

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WMA Group affiliated with: Sierra-San Joaquin Noxious Weed Alliance

Please Confirm, All projects described in this work plan will be in one contract with (if more than one contract is desired, please describe here): Confirmed, 1 contract with Mariposa County

The Sierra-San Joaquin Noxious Weed Alliance (WMA for Mariposa, Madera, and Fresno Counties) consists of over 20 agencies and groups successfully coordinating weed management since 1998. The focus has been on control along roads and on key properties representing both the yellow star thistle leading edge and outlier infestation control. The group is lead by the Stanislaus National Forest, which holds quarterly meetings and coordinates the WMA.

Projects implemented by Mariposa County using AB 2479 and USFS grants as well as Mariposa County funding:

- The Mariposa County Department of Agriculture carries out a comprehensive weed detection program on behalf of the whole county.
- Conducted a cost-share program in the county with private landowners for yellow star thistle and tocalote
- Held yearly California Invasive Weed Awareness Week activities in July.
- Held yearly outreach workshops for land managers, ranchers, licensed applicators, agency personnel, and the general public
- Distributed several thousand weed brochures in conjunction with Cal-Fire during their annual landowner "defensible space" brush control inspections
- Established a Mariposa County Integrated Weed Management Committee to address noxious weed issues specific to Mariposa County and develop a coordinated approach to IWM with our agency partners

Proposed Projects

Project Title: Project 1 – Iberian Star thistle (*Centaurea iberica*) Survey and Eradication In Mariposa County on BLM and Private Lands

Overall Project Goal:

To eradicate all new infestations of Iberian Star thistle in Mariposa County and prevent its spread into the adjacent private, county, state and Federal lands. To stop the spread of Iberian Star thistle (*Centaurea iberica*) along the Piney Creek watershed near Coulterville in a rural residential neighborhood extending down the creek to Lake McClure. This Iberian Star thistle infestation is the only one existing in Mariposa County and is limited to private property and riparian areas at this time.

Iberian Star thistle is a biennial noxious weed of limited distribution in the state and presently under eradication. This weed is a serious rangeland and environmental pest capable of encroaching throughout the lower watershed as it moves downstream by water, animals, wind and man. Iberian Star thistle has the potential to become the “yellow star thistle” of the waterways and wetlands. The need to delimit and eradicate this weed is critical because of the potential for rapid spread. Early detection and treatment is much more efficient, cost effective and beneficial to many land users. Control efforts are critical to prevent this A-rated weed from further encroachment on the creek and seeds from being moved into other areas by introduction into Lake McClure. By eradicating this infestation, Mariposa County will prevent its spread onto other property adjacent to these communities and protect the biodiversity of the flora and fauna in the area.

Background:

Mariposa County in cooperation with the Sierra – San Joaquin Noxious Weed Alliance began an Iberian Star thistle control program in 2001. Project partners include:

- ❖ Mariposa County Department of Agriculture
- ❖ Sierra – San Joaquin Noxious Weed Alliance (Mariposa, Madera, and Fresno Counties)
- ❖ California Department of Food and Agriculture
- ❖ USFS
- ❖ Stanislaus National Forest
- ❖ Bureau of Land Management
- ❖ Merced Irrigation District
- ❖ University of California Cooperative Extension

Since the beginning of the project in 2001, crews have targeted the area from Piney Creeks’ origin above Granite Springs Road to below Highway 132 where it enters Lake McClure. This area includes seventy creek side parcels along 5 miles of Piney Creek in the Lake Don Pedro subdivision as well as the original source of the infestation. The landowners are contacted via letter and by personal visits informing them of the project and requesting their cooperation in treating the plants. The crews have walked the creek with backpack sprayers doing spot spraying of the Iberian Star thistle with herbicide and have reduced the infestation to less than 95 per cent of the original infestation area, with several areas completely eradicated. The treatment area is restricted to approximately 20 feet on each side of the creek in addition to the origin site and two other small infested sites at the junction of Granite Springs Road and Penon Blanco.

Project Objectives and Methods:

Objective: Iberian Star Thistle detection and eradication will be conducted on private and public lands. This project will be led by the Mariposa County Department of Agriculture (MCDA) with assistance from CDFA Associate Biologists. Treatment and survey of Iberian Star Thistle sites will be conducted on public and private land in the Piney Creek drainage of Mariposa County.

Task 1 – Intensify eradication efforts in the Piney Creek watershed near Coulterville and Lake McClure.

1. Mariposa County Department of Agriculture personnel will train and supervise a Weed Management Coordinator in Iberian Star Thistle detection and control.
2. Contact property owners in the project area for permission for treatment
3. Contract with a Pest Control Operator to spot treat Iberian Star Thistle 2 times on a 3 to 4 week schedule with follow-up treatments as necessary. The PCO will treat all known infestations and new detections of Iberian Star Thistle on private property within the project area. The herbicides of choice will be Roundup Pro and Rodeo. Hand pulling is an option for small infestations.
4. The staff will survey previous infestation sites for Iberian Star Thistle. Survey will continue outside the original infestation to determine the possible spread of Iberian Star Thistle. Surveys will be performed by MCDA, CDFA, Weed Management Coordinator, and BLM staff.

Task 2- Performance Evaluation for Project Success

1. Evaluate the treatment success by sampling the Iberian Star Thistle control area (measure percent cover using a line transect and the point-intercept method for 4 replications) and comparing it to baseline data collected prior to treatment using contracted staff and CDFA personnel
2. Survey, map with GPS and photograph the treated areas at 6 months and 1 year after treatment at the time of cover sampling using contracted staff.
3. A computerized GIS map of the project site will be created with the locations of detected spotted Iberian Star Thistle plants/populations and treatment sites with the assistance of CDFA and BLM. There will also be a record of previously detected locations that have been sprayed and considered controlled.
4. We will follow CDFA's weed monitoring protocol, measuring the cover of weeds or counting individual plants when feasible.

Project Title: Project 2 – Stop the Spread of Yellow Star Thistle into Yosemite National Park, USFS Forest Lands, and the Merced River Canyon

Overall Project Goal:

To stop the spread of Yellow Star Thistle (*Centaurea solstitialis*) into the Sierra and Stanislaus National Forests as well as the Merced River Canyon and Yosemite National Park through the use of integrated weed management techniques. By defining a line of demarcation at the eastern leading edge of the yellow star thistle movement into the higher elevations, a control effort can be coordinated with land managers and owners to stop the spread into these high risk areas.

Control efforts are critical to prevent this invasive noxious weed from further encroachment onto forest, rangeland, and particularly into the Stanislaus National Forest, the Sierra National Forest, Merced River Canyon watershed, and Yosemite National Park. Control methods are coordinated with the agencies involved, land managers, and land owners to stop the spread of

yellow star thistle using mechanical removal, chemical methods, mowing and weed-whacking, and biological control depending on the treatment areas.

Background:

Mariposa County in cooperation with the Sierra – San Joaquin Noxious Weed Alliance began a Yellow Star thistle control program in 2001. Project partners include:

- ❖ Mariposa County Department of Agriculture
- ❖ Mariposa County Board of Supervisors
- ❖ Sierra – San Joaquin Noxious Weed Alliance (Mariposa, Madera, and Fresno Counties)
- ❖ California Department of Food and Agriculture
- ❖ Yosemite National Park
- ❖ CalTrans District 10
- ❖ CalTrans District 6
- ❖ Mariposa County Public Works Department
- ❖ Stanislaus and Sierra National Forests
- ❖ University of California Cooperative Extension
- ❖ Upper Merced River Watershed
- ❖ Mariposa Mountain Riders
- ❖ Bureau of Land Management
- ❖ Cal-Fire

Since the beginning of the project in 2001, the local eradication/control program emphasis has been on roadside populations and private landowner outreach. Collaborative partnerships have been developed with CalTrans Districts 10 and 6, Mariposa County Public Works Department, the US Forest Service, Bureau of Land Management, and the National Park Service to address the right-of-way infestations in a coordinated manner which present the leading edge of the movement into the higher elevations, particularly into the Stanislaus and Sierra National Forests and Yosemite National Park.

Project Objectives and Methods:

Task 1 – Continue and intensify eradication and control efforts in the targeted areas, primarily those adjacent to US Forest Service lands, the Merced River Canyon, and Yosemite National Park.

1. Intensify efforts to work with property owners in the Merced River Canyon area for control of yellow star thistle and tocalote with integrated weed management methods (mechanical, weed-whacking, biocontrol, or chemical)
2. Evaluate and develop an integrated weed management protocol for the area including the use of contract crews utilizing mechanical (weed whacking, pulling, digging, etc.) and herbicide spot treatment, as appropriate.
3. Contract with a Pest Control Operator to treat Yellow Star thistle and tocalote with Milestone™ and other herbicides in the leading edge areas, particularly along the roadsides
4. Employ mowing and weed-whacking using Department of Corrections crews in areas where isolated populations occur and in areas where rare and endangered species are present, particularly in the Merced River Canyon.
5. Contact and work with property owners and agencies in the leading edge areas for control of yellow star thistle and tocalote with integrated weed management methods (mechanical, weed-whacking, mowing, biocontrol, and chemical).
6. Continue to implement a cooperative cost share spray program with private landowners in these targeted areas on a 50/50 ratio to continue the aggressive assault on the yellow star thistle seed bank.

Task 2 - Increase detection and survey work over the entire area including additional surveys in cooperation with private land owners and managers, beyond the current project partners.

1. Detection, mapping, and survey work will be coordinated by the Mariposa County Department of Agriculture utilizing seasonal and permanent staff.

Task 3 - Performance Evaluation for Project Success

1. Evaluate the treatment success by sampling the YST control sites (measure percent cover using a line transect and the point-intercept method for 4 replications) using contracted staff. Based on the results of the treatment, follow up sprays may be required.
2. Survey and photograph the treated areas just before treatment, at 6 months, and 1 year after treatment at the time of cover sampling using contracted staff. . Digital photos will be taken to document the extent and success of the control efforts.
3. Contact all participating landowners at the end of each annual treatment by the County Weed Management Coordinator to assess treatment success.
4. All mapping will be completed utilizing Global Positioning System (GPS) data collection and Geographical Information Systems (GIS) through CDFA for data management and map production. The mapping of yellow star thistle and other noxious weeds in the County was begun in 2000 using SB1740 funding by the Mariposa County Department of Agriculture and continued in 2008 with YST Eastern Leading Edge mini-grant funding.
5. In addition, we will follow CDFA's weed monitoring protocol, measuring the cover of weeds or counting individual plants.